



<b>Author Name:</b> Karen Lynds	<b>Content Areas:</b> Reading, Math, Writing, Science, Art, Social Studies
<b>Lesson Plan Title:</b> Working With Dolphins	<b>State:</b> MA
<b>Lesson Time Frame:</b> 3 weeks	<b>Inspired by an Earthwatch Expedition:</b> Wild Dolphin Societies
<b>Student Level:</b> Elementary	

### Goals

Introduce the characteristics of bottlenose dolphin, their foods and habitat. Identify how dolphins interact with their environment and how they are affected by human influence and pollution. The children will also be asked to identify what we can do to help save dolphins.

### Initiating Activity- All about mammals

Make a chart of the things the class already knows about mammals in general and things they would like to know. (The things on the list may or may not be true. The list will be referred to, changed and added to as more is learned about the topic.) The children will be introduced to bottlenose dolphins by listening to a book called “Dolphin’s First Day”. Later the class will watch a video, National Geographic, “Deep Sea Dive.”

### Reading

Students will read from several books selected for this unit. The list of the books follows. The children will be asked to read independently and in small groups. Each day the children will record new information that they learned into their daily journals. These dolphin journals will be shared at the end of the three weeks and the new information will be added to the large chart about dolphins.

- “The Friendly Dolphin” by Stan Pearce
- “Dolphin” by Robert Morris
- “Nine true dolphin stories” by Margaret Davidson
- “Dolphin’s First Day” by Kathleen W. Zoehfeld
- “A Dolphin named Bob” by Twig C. George
- “The Playful Dolphins” by National Geographic Society
- “Dolphins, what they teach us” by Mary Cerullo

### Math

Students can work on teacher created "Dolphin Math" activities at a Math Center, either individually or in groups. These activities would depend on the level and mathematics needs of the students in a particular class. An example of "Dolphin Math" would be word problems using facts. (A dolphin eats 15 fish in 30 minutes. How many can it eat in one hour? How many fish could six dolphins eat in an hour?)

### **Map Skills**

Children will be given a map of the USA. They will locate Massachusetts and Florida on the map. They will identify surrounding bodies of water near both states. The children will also identify land features pertaining to each state. (Mountains, rivers, cape, everglades, etc) Discuss the size of the states, similarities and differences. The children will then locate (Leeds) or Northampton and Sarasota. Calculate the distance between both cities and identify perhaps the flight plan that a plane might take to travel that distance.

**STANDARD 1:** How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information.

### **Charting and Graphing**

Each day the children will graph the temperature and the weather in Leeds and in Sarasota. They will calculate the differences. Then temperature will be averaged for the week. The class will make suggestion as to why the temperature is hotter in Florida than in Massachusetts.

### **Art**

Using paints, crayons and construction paper the children will create a large mural featuring dolphins and a realistic habitat of Sarasota, Florida. Additional animals may also be included that are found in the Sarasota area (pelicans, egrets, eels).

### **Social Studies**

The children will listen to the book "A Dolphin named Bob". Discuss the story. (A dolphin that was injured by a passing boat washes up on a beach and is rescued) Continue class discussion about ways to help protect dolphins from passing boats, and cite various organizations that save injured dolphins. The children will begin a read-a-thon where parents will pledge money for books read that will then be used to sponsor and adopt a dolphin. (The class decided to adopt Freedom, a bottlenose dolphin)  
<http://www.healthyplanet.com/dolphin.shtml>

**Extension** :In addition, the children will write letters to government officials and the National Marine Fisheries Service in favor of dolphin safe tuna fishing.

**STANDARD 18:** To apply geography to interpret the present and plan for the future.

### **Science**

These science lessons focus on sound. The first lesson introduced the anatomy of the human ear. How do we hear? How does sound travel? The children will be introduced to several simple hearing experiments with objects from around the classroom. While covering their eyes they will listen and identify the ringing of a bell, chalk on the board, the closing of a book, and the dropping of a marker and so on. Then in the computer lab the children will visit the following website to learn more about sound. Students will also learn that sound is caused by vibrations, and they explore how sound travels. They learn about the relationship of pitch, volume and vibrations. These additional experiments will be conducted in the music room with various musical instruments.

<http://www.enchantedlearning.com/subjects/anatomy/ear/label/labelanswers.shtml>

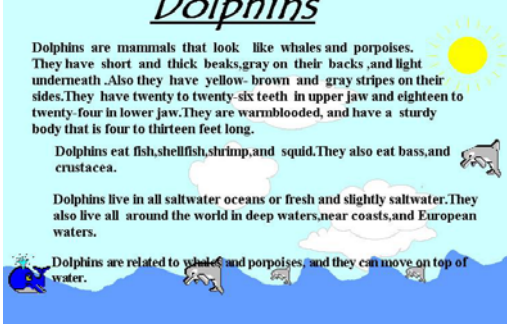

Dolphins use echolocation for many things. Where are the ears on a dolphin? How do they communicate with each other? The children will visit the following site to learn additional information about echolocation.

<http://www.enchantedlearning.com/subjects/whales/glossary/Echolocation.shtml>

The children will then participate in a simple experiment using paper towel tubing and toilet paper rolls. Have the children hold the paper rolls to their ears while they close their eyes. Have one child stand at various places throughout the room while speaking loudly into a paper towel tube. What happens when they tilt their heads toward the sound? Away from the sound? Could they find the exact location from where the sound was coming? Children will play rounds of Marco Polo outside.

### **Writing**

After researching about dolphins in the library, the class will draft a paragraph of interesting information. Then using the Kidpix program in the computer lab, they will draw and add informational text to their dolphin pictures. These completed projects will be added to the classroom website.

<h2 style="text-align: center;"><u>Dolphins</u></h2> <p>Dolphins are mammals that look like whales and porpoises. They have short and thick beaks, gray on their backs, and light underneath. Also they have yellow, brown and gray stripes on their sides. They have twenty to twenty-six teeth in upper jaw and eighteen to twenty-four in lower jaw. They are warmblooded, and have a sturdy body that is four to thirteen feet long.</p> <p>Dolphins eat fish, shellfish, shrimp, and squid. They also eat bass, and crustacea.</p> <p>Dolphins live in all saltwater oceans or fresh and slightly saltwater. They also live all around the world in deep waters, near coasts, and European waters.</p> <p>Dolphins are related to whales and porpoises, and they can move on top of water.</p> 	<p><u>Dolphins are sea animals closely related to whales and porpoises. They have short beaks and they are warm blooded. Their beaks are gray. They have yellow and brown stripes and gray on the sides. There are 20 to 26 pointed teeth on the upper jaw and 18 to 24 teeth on each side of the lower jaw.</u></p> <p><u>They eat fish and shellfish, and shrimp, squid, crustacea.</u></p> 
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### Poetry

The children will be introduced to various types of poetry. The children will create a picture to go with these poems.

<h3 style="text-align: center;">Dolphins</h3> <p style="text-align: center;">water splasher body flasher fast glider brilliant swimmer care taker playful creature wave maker.</p>	<h3 style="text-align: center;">Wild Dolphins</h3> <p style="text-align: center;">Four meters long and scattering spray, In the deep green waters dolphins play. Lively, leaping, lots of fun, lifting the spirits of everyone. No rushing about just flow with the tides, My playful friends jump and glide.</p>
<h3 style="text-align: center;">Dolphins</h3> <p style="text-align: center;">D is a clue I don't think they get the flu. They swim through the water and sometimes get slaughtered. They use echolocation whilst they wait at the station. Eating lots of fish not even in a dish.</p>	<h3 style="text-align: center;">I am a dolphin</h3> <p style="text-align: center;">A spiritual grace An elegant face A surfer of waves On sunny days In the deep blue sea I was born to be free In real style I jump a while</p>

The playful Bottle Nose Dolphin	I like a ride With you by my side Deep down I am a Dolphin
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### Poetry

Children will write an acrostic poem featuring the word D-O-L-P-H-I-N.

**D**iving  
**O**ut of the water  
**L**eaping and laughing  
**P**erforming in shows, playful  
**H**ome in the ocean,  
**I**ntelligent, interesting  
**N**ice and friendly

### Music

Sing to the music of "Jingle Bells"

Kangaroos, elephants, dolphins and whales,  
Angelfish and llamas, ostriches and snails.  
They have one thing in common, now it if you can.  
They all share planet Earth with an animal called man.

So let's all lend a hand,  
And keep this planet safe,  
We want to share our land,  
With each animal and race.

Now, take a look around,  
And hold each other's hand.  
Isn't that a pretty sound?  
Peace rings across the land.

Oh, kangaroos, elephants, dolphins and whales,  
Angelfish and llamas, ostriches and snails.

They all have one thing in common, now guess it if you can.  
They all share planet Earth with an animal called man.

### **Music**

Sing to the tune, "You are my sunshine."

#### My dolphin

You are my dolphin  
my special dolphin  
you live in water  
I live in land  
When school is over  
We'll be together  
having fun playing in the sand.

### **Websites**

Sea World Animal Information Database-

<http://www.bev.net/education/SeaWorld>

Includes animal facts, photos, and resources. Students can join Jack Hanna on a safari via the internet (March, 1997). Check for other "tours" at later dates.

ZooNet-

<http://www.mindspring.com/~zoonet>

All about zoos, with zoo links, animal links, and links to endangered species.

Mammals-

<http://www.liunet.edu/~edt/macwebsters/marciapro/mammals.html>

A simple explanation of the characteristics of mammals.

Wildlife Web-

<http://www.selu.com/~bio/wildlife/index.html>

This website includes a gallery of photos of mammals along with animal sounds.

Zoo in the Wild-

[http://ape.apenet.it/EDV/ZOO/e\\_ind.html](http://ape.apenet.it/EDV/ZOO/e_ind.html)

Includes pictures and information about animals in their natural habitats. Students can choose from a long list of animals to find specific information.

Bottlenose Dolphins-

<http://www.enchantedlearning.com/subjects/whales/species/Bottledolphin.shtml>

Wonderful site for detailed information about dolphins.

Learn about Dolphins-

<http://www.dolphinsfilm.com/FSLearn.htm>

Excellent site.

Dolphins by Joy-

<http://www.crockerfarm.org/ac/rm02/animals/joydolphin.htm>

**Videos:**

"Mammals." Volume 9 of the Children's Video Encyclopedia. Tell Me Why, 1987.

"Mammals." National Geographic Society, 1996.

"Deep Sea Dive." National Geographic Society, 1985

**Write to:**

World Wildlife Fund  
1250 24<sup>th</sup> Street, N.W.  
Suite 400  
Washington, D.C. 20037

Lesson/Unit Title	<i>Working with Dolphins</i>
Grade Level	Grade 3
Content Areas	Reading, Math, Writing, Science, Art, Social Studies
Time Allotment	Three weeks
Academic Standard(s)	Science Curriculum Frameworks – Massachusetts <u>Life Science</u> - Grades 3-5 Classify plants and animals according to the physical characteristics that they share.  <u>Physical Science</u> - Grades 3-5 Recognize that sound is produced by vibrating objects and requires a medium through which to travel. Relate the rate of vibration to the pitch of the sound.
Abstract	To introduce and reinforce the life and characteristics of dolphins, their habitats, and the effect of human

	intervention on their environment.
Goal	.To gain a greater understanding of how dolphins live
Performance Indicators	Understanding that dolphins are mammals
Background Information	Analyzing, Inferring, Predicting, Making Decisions, Cause and Effect, Identifying, Solving Problems, Map Skills, Writing Skills
Materials	Books, videotapes, brochures, computers, Internet, paints, crayons, charts, maps
Technology	Websites, Kidpix, Interactive software, E-mail
Assessment	Individual projects, whole class activities, class mural
Connection to other Content Areas	Music, Poetry
Extensions	Field trip, writing letters, classroom participation in adopting a dolphin program
Acknowledgements	too numerous to mention

### **Reflection**

In summary, the children thoroughly enjoyed this project. I was amazed at how much they learned. They eagerly went to the computer lab each day to read the daily postings that I placed on the classroom website. In the evening I would answer their email questions and placed answers to their questions onto a page of the website. (Another great source for answering the questions the children had could be found at this website <http://thedolphinplace.com/QandA.html>) Even the children's parents actively participated in reading about the dolphin expedition from home. At the end of the project I had parents complete a questionnaire. It was obvious that this project was a highlight of the year!

I was very pleased with children's academic participation in all curriculum areas. They drew pictures, wrote letters, sang songs, completed experiments and lovingly collected money to participate in a dolphin adoption program. I couldn't have asked for more. Parents were pleased to see a heightened environmental awareness; many mentioned that when going to the store their child insisted on only buying cans of tuna that directly stated dolphin free tuna on the label.

As a final culminating activity the entire school, (grades Kindergarten to Grade 5) was treated to a Power Point presentation in the auditorium. This slide show featured photographs that I had taken from the trip and also featured student work. Our large classroom mural has been on display in the foyer of the school since the beginning of the expedition and has received rave reviews.

For me this was a unique opportunity to do something I would never have had the chance to do. It gave me a new perspective of teaching "outside" of the classroom that was really quite unique. Everyone was very helpful and kind and I gained a new respect for all the marine biologists and their endeavors to save these animals. I shall always be grateful for having had such a wonderful, enlightening experience.